

tion there are brought together under each drug the data relating to its constituents, adulterations, botanical and commercial origin, etc. The key for the identification of powdered drugs is of especial importance and will prove of great value to pharmacists. While essentially the scheme originally published in the Proceedings of the American Pharmaceutical Association in 1898, and for which the Ebert and Maisch prize was awarded to Professor Kraemer, it will be noted that it has been substantially recast and elaborated and appears for the first time accompanied by a key and index.

This systematic description of drugs after the manner of the botanical systematist, appearing for the first time in a work of this kind is the most important and valuable feature of the book, and will prove to have great advantage over the plan of treatment given in pharmacopoeias.

CARLTON C. CURTIS.

PROCEEDINGS OF THE CLUB

TUESDAY, DECEMBER 9, 1902

This meeting was held at the College of Pharmacy ; Dr. Rusby in the chair ; 12 persons present.

The deaths of two members were reported by the secretary, of the Very Reverend E. A. Hoffman, June 17, 1902, and of Dr. T. F. Allen, December 5, 1902. Resolutions in honor of the latter, a vice-president and founder of the Torrey Club, are in preparation, and his funeral at St. Thomas' Church on December 8, was attended by representatives of the Club.

One new member was elected, Mrs. Frank E. Curtis, 78 Orange Street, Brooklyn, N. Y.

The scientific program followed. The first paper was by Professor A. D. Selby, on "Cultures of the Grape-rot Fungus," with exhibition of culture-tubes containing its fully developed perithecia, spore-sacs and spores, derived from pycnospores upon the grape leaf. This fungus has menaced the grape industry in Ohio, producing rotting of fruit and spotting of leaf.

The second paper, by Dr. H. H. Rusby, was on "The Flora of the Orinoco Delta," a delta extending about 200 miles along the sea, and as far inland if we include the region of rocky islands and deep rocky river channels in addition to the area of silt-deposit. It is doubtful if the part visited by Dr. Rusby had been botanically explored before his visit. Its characteristic features are :

1. A hill flora which covers islands never submerged and rocky banks of the river toward the interior : trees and Bignoniaceous vines characterize it. Mounted sheets exhibited (from Dr. Rusby's collecting) included *Spondias*, the hog-plum, *Anona*, the custard-apple, palms of the genus *Bactris*, and representatives of the many large trees (exceeding often 100 feet high), as a *Vitex* of the *Verbenaceae* family and an *Alibertia* of the *Rubia* family ; also a *Paullinia*, a woody vine and a *Cupania*, both of the Sapindaceae, etc.

2. A river flora, including a marginal flora on submerged banks and a submerged flora upon islands : chiefly a mass of tangled vines. River bank trees of which specimens were shown included a *Cecropia* of the fig family, and *Inga*, a relative of the acacia, a tree which becomes a mass of flowers frequented by hundreds of humming-birds. Another tree, *Hecastophyllum*, has its hollow stems inhabited by myriads of stinging ants. Shrubs of the marginal flora include many with a milky juice, as *Tabernaemontana*, and many gorgeous-blooming species of *Solanum*. Woody vines were largely of the Bignoniaceae ; drinkable water was obtained from the stem of one which climbed perhaps 100 feet. Marginal river herbs shown included a *Spigelia*, source of a valuable drug, especially important now that the *Spigelia* of the southern United States is disappearing. A *Cuphea* with orange flowers made a magnificent display. A *Heliconia* (*H. pendula*) of the Zingiberaceae, resembles a drooping orchid. *Sphenoclea*, an introduced member of the *Lobelia* family from India, covered low places. Island trees include several large drupe-bearing species of *Moquilea* and *Licania*, related to our plum, and producing a wood valued there for charcoal-making.

3. Along the setbacks of high-water periods, lakes remain as the water recedes, alternating with partly dried exposed levels, which produce peculiarly dense and formidable swamps. The

lakes become covered with vegetation which resembles a meadow at a distance. This swamp flora includes floating and herbaceous aquatics and shrubby thickets like chaparral. Trees occur with roots nearly exposed during the dry season.

The swamp flora includes many trees of the *Rubia* family, with valuable wood; a profusion of shrubby *Lantana* and *Eupatorium*; various vines, as the *Securidaca* of the *Polygala* family; herbs, as *Jussiaea* of the Onagraceae, etc.

4. A tidal flora extends some forty miles in breadth along the coast, with villages built on piles. The littoral flora at the ocean edge is soon replaced by an inland tidal flora, largely of stout fan-leaved palms, of different species from the short spiny palms of the river margins or the tall smooth palms of the hills.

Dr. Rusby found but few orchids; two exhibited were a beautiful *Ionopsis* and a *Habenaria* of curious floating habit, growing over deep water. One of the palms occurring there is remarkable for its elevated base, raised about four feet by means of spiny outward stilts (roots?), its smooth trunk rising upward about forty feet.

In answer to inquiries, Dr. Rusby said that his collections were made during six weeks beginning in April; that though he found many flowers, he concluded that flowering and seed production at any time is comparatively the exception in the tropics, nature relying chiefly on the continuance of plants by vegetative processes. Much of the country visited was uninhabited; the Imataca mountains, about twenty-five miles distant, had never, it would seem, been visited by the Indians of the region. Dr. Rusby attempted to reach them, but in vain, making but nine miles in three weeks.

Two members of the party afterwards reached these mountains, and were rewarded by the discovery of a "lace-work fall" hundreds of feet in height but falling from inaccessible cliffs.

The evening's program closed with the exhibition by Dr. Underwood of a sterile mycelium of a fungus of the nature of a *Polyporus*, growing recently beneath the new North German Lloyd docks.

EDWARD S. BURGESS,
Secretary.

MEETING OF JANUARY 13, 1903

This, the annual meeting, was held at the College of Pharmacy; seventeen present; Dr. H. H. Rusby in the chair.

The minutes for December 9 were read and approved. The announced meeting of December 31 was reported adjourned.

Election to active membership included three: Mr. Marshall H. Bright, Tarrytown, N. Y.; Mr. L. C. LeRoy, 6 Lexington Ave., New York City; Miss Mary M. Brackett, 640 West 115th St., New York City.

Annual reports of officers were made as follows:

By the treasurer, Professor F. E. Lloyd, reporting a balance in the treasury.

By the recording secretary, Professor E. S. Burgess, presenting the bound volume of minutes for the year 1902, and reporting a present active membership of 238, and total membership of 384; 17 meetings during the year with average attendance of 19; 34 papers presented, besides about 33 minor communications or brief notes.

By the corresponding secretary, Dr. J. K. Small, reporting attendance upon the foreign correspondence of the Club.

By the editor-in-chief, Dr. L. M. Underwood, reporting 1902 as the Club's most productive year of publication, both as regards text and plates, with a total 1,761 octavo pages and 90 plates. This was partly in consequence of the number of Memoirs printed, two intended for 1901 having been delayed till 1902.

By the editor of *TORREYA*, Dr. M. A. Howe, reporting a favorable increase in the subscriptions outside the club membership.

By Dr. N. L. Britton, chairman of the committee on local flora, calling attention to the need of the prosecution of local studies.

By Dr. L. M. Underwood, chairman of the committee on the Cryptogamia, reporting the local value of Dr. Tracy E. Hazen's recent monograph on the Chaetophoraceae and Ulothricaceae, based very largely on material collected in or near New York City. The local fleshy fungi have been extensively collected during the past year by Professor F. S. Earle, including some 1,400 numbers.

The report of the chairman of the field committee, Dr. Schoe-

ney, was deferred on account of his illness. The need of more help in supplying guides was presented by Mr. Eugene Smith.

The following special committees were appointed:

An auditing committee, to consider the accounts of the treasurer, consisting of Dr. Britton and Dr. Small.

A committee of ways and means to promote the usefulness of the Club by increase of membership in the city and among non-resident botanists, and to increase the subscription list of our three publications. On motion of Dr. Underwood, the editor, treasurer, recording secretary, and the two vice-presidents were appointed as this committee.

The session was closed by the annual election. Several changes in the official board were made necessary by the death of vice-president Allen, the departure of the editor, Dr. Underwood, on his sabbatical leave, and the resignation of the secretary, E. S. Burgess, on account of pressure of work. The following officers were elected: *President*, Hon. Addison Brown; *Vice-Presidents*, Dr. H. H. Rusby, Professor E. S. Burgess; *Treasurer*, Professor F. E. Lloyd; *Recording Secretary*, Professor F. S. Earle; *Corresponding Secretary*, Dr. J. K. Small; *Editor*, Dr. John H. Barnhart; *Associate Editors*, Dr. N. L. Britton, Dr. T. E. Hazen, Dr. M. A. Howe, Dr. D. T. MacDougal, Dr. W. A. Murrill, Dr. H. M. Richards, Miss Anna Murray Vail.

Adjournment followed upon this election.

EDWARD S. BURGESS,
Secretary.

CORRESPONDENCE

The *Connecticut Botanical Society* was organized in New Haven, January 24, 1903, with an initial membership of thirty-one ladies and gentlemen interested in the flora of the State.

The officers of the Society are: *President*, Professor A. W. Evans; *Vice-President*, Dr. C. B. Graves; *Recording Secretary* and *Treasurer*, Dr. E. H. Eames; *Corresponding Secretary*, Mr. E. B. Harger, Oxford, Conn.